

IN THE CLAIMS

1. (Currently Amended) A molding method using ultrasonic vibration in which a resin material in a molten state is injected from an injection apparatus, filled into a cavity of a mold, and cooled down to obtain a product in a predetermined shape, the method ~~being characterized by~~ comprising:

preparing ~~the~~ a mold having a product cavity to mold ~~the~~ a product, a dummy cavity to mold a dummy product, and a runner by which the product cavity and the dummy cavity are connected;

~~filling the resin material into~~ injecting a resin material in a molten state into the product cavity via an injection apparatus; ~~and~~

~~supplying~~ injecting the resin material in ~~the~~ a molten state ~~to~~ into at least part of the dummy cavity; and

applying ~~the~~ ultrasonic vibration to the resin material in the dummy cavity at predetermined timing.

2. (Currently Amended) A molding method using ultrasonic vibration in which a resin material in a molten state is injected from an injection apparatus, filled into a cavity of a mold, and cooled down to mold a product in a predetermined shape, the method ~~being characterized by~~ comprising:

preparing ~~the~~ a mold having a plurality of product cavities to mold ~~the~~ products, a runner by which the product cavities are connected to each other, and a resin pit ~~provided~~ located at a halfway part of the runner;

~~supplying~~ injecting the resin material ~~to~~ into the resin pit ~~and filling until~~ the resin material fills into all of the plurality of product cavities; and

applying ~~the~~ ultrasonic vibration to the resin material in the resin pit at predetermined timing.

3. (Currently Amended) The molding method using the ultrasonic vibration according to claim 1, ~~characterized in that~~ wherein the predetermined timing is after start of supply of the resin

material to at least part of the dummy cavity or the resin pit and while the resin material in the runner has a predetermined viscosity.

4. (Currently Amended) The molding method using the ultrasonic vibration according to claim 1, ~~characterized in that~~ wherein the ultrasonic vibration is applied while a compressed state is maintained after the resin material is filled into the product cavity and compressed.

5. (Currently Amended) The molding method using the ultrasonic vibration according to claim 1, ~~characterized in that~~ wherein the ultrasonic vibration is applied so that an amount of the resin material flowing into the product cavity from the dummy cavity and air gaps other than the product cavity is in a range of 0.1% by volume to 5% by volume of the resin material filled into the product cavity.

6. (Currently Amended) The molding method using the ultrasonic vibration according to claim 1, ~~characterized in that~~ wherein the ultrasonic vibration is applied immediately after the filling of the resin material is started and until a gate in communication with the product cavity is sealed.

7. (Currently Amended) The molding method using the ultrasonic vibration according to claim 1, ~~characterized in that~~ wherein a nozzle of a molding machine to supply the resin material to the mold is closed immediately after the filling of the resin material is completed.

8. (Original) The molding method using the ultrasonic vibration according to claim 7, wherein the product is an optical lens.

9. (Currently Amended) The molding method using the ultrasonic vibration according to claim 7, ~~characterized in that~~ wherein the optical lens is a spectacle lens, and the method further comprises a step of subjecting the obtained spectacle lens to a surface treatment ~~is further added.~~

10. (Currently Amended) An optical lens ~~characterized by being~~ manufactured by a molding method according to claim 8.

11. (Currently Amended) A molding machine in which a resin material is injected from an injection apparatus, filled into a cavity formed in a mold, and compressed to mold a product in a predetermined shape, the molding machine ~~being characterized by~~ comprising:

~~the~~ a mold having a product cavity to mold the for molding a product[[,]] ;

an injection apparatus for injecting a resin material into said mold;

a dummy cavity ~~to mold for molding~~ a dummy product, ~~and~~ ;

a runner ~~by which~~ connecting the product cavity and the dummy cavity ~~are connected~~;

ultrasonic wave application means for applying ultrasonic vibration to ~~the~~ resin material in the dummy cavity; and

control means for controlling application timing of the ultrasonic vibration by the ultrasonic wave application means.

12. (Currently Amended) A molding machine in which a resin material is injected from an injection apparatus into a cavity formed in a mold and compressed to mold a product in a predetermined shape, the molding machine ~~being characterized by~~ comprising:

~~the~~ a mold having a plurality of product cavities to mold the for molding products[[,]] ;

a runner ~~by which~~ connecting the product cavities ~~are connected~~ to each other, ~~and~~ ;

a resin pit ~~provided~~ located at a halfway part of the runner;

an injection apparatus for injecting a resin material into said resin pit, thereby filling the plurality of product cavities with resin via said runner;

ultrasonic wave application means for applying ultrasonic vibration to ~~the~~ resin material in the resin pit; and

control means for controlling application timing of the ultrasonic vibration by the ultrasonic wave application means.

13. (Currently Amended) The molding machine according to claim 11, ~~characterized in that~~ wherein timing when the control means applies the ultrasonic vibration is after start of supply of

the resin material to at least part of the dummy cavity or the resin pit and while the resin material in the runner has a predetermined viscosity.

14. (Currently Amended) The molding machine according to claim 11, ~~characterized in that~~ wherein the timing when the control means applies the ultrasonic vibration is while a compressed state is maintained after the resin material is filled into the product cavity and compressed.

15. (Currently Amended) The molding machine according to claim 11, ~~characterized in that~~ wherein the mold has a sprue in communication with the runner ~~in addition to the runner~~.

16. (Currently Amended) The molding machine according to claim 11, ~~characterized in that~~ wherein ~~a~~ the resin pit is located at a midpoint of the runner.

17. (Previously Presented) The molding machine according to claim 11, wherein the product is an optical lens.

18. (Currently Amended) The molding machine according to claim 12, ~~characterized in that~~ wherein timing when the control means applies the ultrasonic vibration is after start of supply of the resin material to at least part of the dummy cavity or the resin pit and while the resin material in the runner has a predetermined viscosity.

19. (New) The molding method according to claim 1, wherein the resin is injected from the injection apparatus into the runner, and from the runner into the dummy mold and the product mold.

20. (New) The molding machine according to claim 11, further comprising a fixed mold and a moveable mold,

wherein both the dummy cavity and the product cavity are located in the same one of the fixed mold and the moveable mold, and the ultrasonic wave application means is located in the other of the fixed mold and the moveable mold, such that when the fixed mold and the moveable mold are connected, a portion of the ultrasonic wave application means is able to contact resin the dummy cavity.

21. (New) The molding machine according to claim 12, wherein a resin-holding capacity of the resin pit relative to each of the product cavities is between 10% and 40%.